



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY

ST. PAUL DISTRICT, CORPS OF ENGINEERS
SIBLEY SQUARE AT MEARS PARK
190 FIFTH STREET EAST, SUITE 401
ST. PAUL, MN 55101-1638

JUN 21 2007

Planning, Programs and Project Management Division
Environmental and Economic Analysis Branch

Dear Interested Parties:

Enclosed for your review are the Environmental Assessment and Finding of No Significant Impact (FONSI) for the proposed replacement of a portion of the water supply system in the community of Orr, Minnesota. Approximately 2,300-feet of replacement line would be installed.

We ask that you review these documents and return your comments to us within 30 days. If we have not received your comments by that time, we will assume that you concur with our findings, and we will sign the FONSI.

If you have questions about the project, please call Mr. Richard Beatty at (651) 290-5273.

Sincerely,

A handwritten signature in black ink, appearing to read "Terry J. Birkenstock", is written over a light gray rectangular background.

Terry J. Birkenstock
Chief, Environmental and Economic
Analysis Branch

Enclosure



DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
SIBLEY SQUARE AT MEARS PARK
190 FIFTH STREET EAST, SUITE 401
ST. PAUL MN 55101-1638

Planning, Programs and Project Management Division
Environmental and Economic Analysis Branch

DRAFT
FINDING OF NO SIGNIFICANT IMPACT

In accordance with the National Environmental Policy Act of 1969, the St. Paul District, Corps of Engineers, has determined the environmental impacts of the following project:

SECTION 569
NORTHEASTERN MINNESOTA ENVIRONMENTAL INFRASTRUCTURE
AND
RESOURCE PROTECTION AND DEVELOPMENT PROGRAM
ORR, MINNESOTA

The purpose of the project is to upgrade a portion of the existing water supply system in Orr, Minnesota. The project features are described in Section III of the environmental assessment. Alternatives to the proposed action are described in Section VI.

The Finding of No Significant Impact is based on the following determinations of project impacts: temporary, non-significant adverse impacts on noise, transportation, and wetlands resources and permanent non-significant adverse impacts on terrestrial resources. The project would have permanent non-significant beneficial impacts on public safety, property values, public facilities and services, and water supply. A complete explanation of these determinations is presented in the Environmental Effects section of the environmental assessment.

Our environmental review indicates that the proposed actions do not constitute a major Federal action significantly affecting the quality of the human environment. Therefore, an environmental impact statement will not be prepared.

Date

JON L. CHRISTENSEN
Colonel, Corps of Engineers
District Engineer

DRAFT
ENVIRONMENTAL ASSESSMENT
SECTION 569
NORTHEASTERN MINNESOTA ENVIRONMENTAL INFRASTRUCTURE
AND
RESOURCE PROTECTION AND DEVELOPMENT PROGRAM
ORR, MINNESOTA

JUNE 2007

DRAFT
ENVIRONMENTAL ASSESSMENT
SECTION 569
NORTHEASTERN MINNESOTA ENVIRONMENTAL INFRASTRUCTURE
AND
RESOURCE PROTECTION AND DEVELOPMENT PROGRAM
ORR, MINNESOTA

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DRAFT
ENVIRONMENTAL ASSESSMENT
SECTION 569
NORTHEASTERN MINNESOTA ENVIRONMENTAL INFRASTRUCTURE
AND
RESOURCE PROTECTION AND DEVELOPMENT PROGRAM
ORR, MINNESOTA

INTRODUCTION

The St. Paul District, Corps of Engineers, has prepared this assessment of the environmental effects that may result from the proposed upgrade and extension of portions of the municipal water supply system in Orr, Minnesota (Sheet 1). This assessment of the proposal is required by the National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality Regulations (40 CFR 1500-1508), and Corps of Engineers regulation ER 200-2-2.

I. AUTHORITY AND NEED FOR ACTION

The authorization for the construction of the proposed actions was given in Section 569 of the Water Resources Development Act of 1999 (Environmental Infrastructure Program) that directs the Secretary of the Army to “establish a pilot program to provide environmental assistance to non-Federal interests in northeastern Minnesota.” The city of Orr requested assistance from the Corps of Engineers for the project and was selected as the non-Federal sponsor.

The proposed action is necessary because the existing water line has deteriorated with age and is undersized for the existing demand on the system. In addition, the existing water line runs under most of the residences which makes repair to the system difficult and expensive. It is proposed to run a new, larger capacity line along the utility right-of-way running along the east (back) edge of the lots. Two additional spur lines would run to Lake Street to allow for the placement of additional fire hydrants. The proposed action would also include the placement of a short segment of new line on the west side of railroad tracks.

II. LOCATION AND CURRENT CONDITIONS

Orr is located approximately 100 miles north of Duluth, Minnesota. It is on the east shore of Pelican Lake, a 12,000-acre lake on the southern boundary of Voyageurs National Park and the western boundary of the Boundary Waters Canoe Area Wilderness/Superior National Forest. Pelican Lake, its river and tributaries are a part of the International Rainy Lake Watershed, which flows directly into the Federal park and wilderness units. Upstream water quality has been deemed the highest significance by water resource agencies.

The project area is on the east side of U.S. Highway 53. The majority of the proposed work would consist of the placement of a 2,500-foot-long reach located just east and parallel to Lake Street. In the 1920's, the existing 4-inch line was placed through the middle of the lots on the

east side of Lake Street. Many of the existing structures serviced by the line were built over the top of the water line.

The existing water line is more than 80 years old and has deteriorated with age. Because of the placement of the line under the residences, repair to the line is difficult and expensive. In addition, the existing 4-inch water main is undersized for the current number of water users along the line. The line is also has insufficient capacity to provide water for firefighting.

III. PROPOSED ACTION

A full array of potential alternatives was evaluated. The following modifications to the water supply system are proposed to correct deficiencies described in Section I. Other alternatives that were studied are described in Section VI of this assessment.

The proposed action would replace a portion of the existing 4-inch water main with a 10-inch water main along a 2,300-foot-long reach of existing utility corridor located immediately to the east of the lots along Lake Street (Sheet 2). In addition, two new fire hydrants along Lake Street, complete with connecting lines to the proposed new main line, would be constructed. A separate 6-inch line, 300 feet long, would be constructed parallel to Lake Street on the west side of the railroad tracks. This line would connect a line previously installed under the tracks to a connection going to the Minnesota Department of Natural Resources facility. All of these lines would be placed a minimum of 7.5 feet below the existing ground surface.

Trench excavation would be used to place the water line. Minimum depth for the trench would be 8 feet with side slopes in the trench of 1:1. The trench would be approximately 20 to 25 feet wide at the ground surface (Sheet 3). The excavated material would be used to refill the trench after placement of the new water line.

IV. AFFECTED ENVIRONMENT

A. Socioeconomic Resources

Orr is located in northeastern Minnesota approximately 240 miles north of Minneapolis/St. Paul, Minnesota, and approximately 100 miles north of Duluth. The 2000 population of Orr was 249, a decrease of 6 percent from 1990. The 2000 population of St. Louis County is 200,528, an increase of 1.2 percent from 1990.

Orr is located on the shores of Pelican Lake in the heart of what is known as Voyageur Country. Pelican Lake is the centerpiece of the community, because a significant portion of the community social structure and economy is derived from resorts and tourism businesses surrounding the lake.

According to information from the U.S. Census Bureau, the 1999 median household money income for Orr was \$27,222, compared to \$47,111 for the State of Minnesota and \$41,994 for the United States. In Orr, 16.4 percent of the population is below the poverty level, compared to 7.9 percent for the State of Minnesota and 12.4 percent for the United States. According to 2000

Census figures, per capita income for Orr was \$14,776, compared to \$23,198 for the State of Minnesota and \$21,587 for the United States.

Orr's labor force totaled 109 in March 2005, according to 2000 Census figures, with an unemployment rate of 5.5 percent. Employment by industry in Orr is led by construction, which accounts for 13.6 percent of total employment, closely followed by manufacturing; retail trade; and recreation, accommodation and food services at 12.6 percent.

B. Natural Resources

The proposed project area lies in the Border Lakes Ecological Subsection of the Laurentian Mixed Forest area of Minnesota. The subsection consists of scoured bedrock uplands or shallow soils on bedrock, with large numbers of lakes. Glacial ice moved from west to east across the subsection, deepening stream valleys in the bedrock. Long, east-west oriented lakes now occupy these enlarged valleys. Topography is dominantly rolling with irregular slopes and many craggy outcrops of bedrock.

1. Terrestrial Resources

a. Vegetation – The major pre-settlement forest communities consisted primarily of jack pine forest, white pine-red pine forest, and hardwood-conifer forest. The latter community was dominated by balsam fir, white spruce, paper birch, and trembling aspen. Most of the subsection remains forested, with most forest types persisting with stand composition and structure similar to that present originally. Most of the project area east of Lake Street is residential in nature or otherwise highly disturbed by the power line right-of-way. The current vegetation consists of remnants of the native forest interspersed with ornamental species, early successional species along the roadways and utility corridors, and grassy/lawn areas of the private homes. The proposed project area west of the railroad track consists of relatively undisturbed forest area interspersed with several abandoned logging roads.

b. Wildlife – Most of the immediate project area is highly disturbed but in proximity to relatively undisturbed natural habitat. Common large fauna likely in the project vicinity or nearby areas include deer, moose, bear, and wolf. Other mammals present include rabbits, mice and voles and small carnivores such as fox, skunk, and weasel. Other common animal species include grouse, hawks, owls, and songbirds.

2. Aquatic Resources – The proposed project area is located within several hundred yards of Pelican Lake. The lake is a high quality recreational resource. It supports a very diverse sport fishery and draws a significant number of tourists to the area. On the northern end of the project area, an intermittent stream approximately 5 feet wide runs from a wetland located to the east of the proposed project area down to Pelican Lake.

3. Threatened and Endangered Species - Two federally protected species can be found in the general project area: the endangered bald eagle (*Haliaeetus leucocephalus*) and the

threatened eastern timber wolf (*Canis lupus*). Both species are known to be present periodically in the general project area.

C. Cultural Resources

In accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, the National Register of Historic Places has been consulted. As of May 25, 2007, no properties are listed on or are eligible for inclusion on the National Register at or adjacent to Lake Street in Orr, where water main construction is proposed. The National Register-listed Orr Roadside Parking Area (SL-ORC-005) is on the west side of U.S. Highway 53 opposite Hillcrest Drive. The historic Orr Depot (SL-ORC-002), B. Potter Café (SL-ORC-003), and Orr General Store (SL-ORC-004) buildings are west of the intersection of U.S. Highway 53 and County State Aid Highway (CSAH) 23. The historic Calvary Lutheran Church (SL-ORC-001) is on the southeast corner of the U.S. Highway 53 and CSAH Highway 23 intersection, south of Lake Street. No previous archeological surveys have been conducted along Lake Street or its immediate vicinity. Cultural resource surveys conducted prior to road work along CSAH Highway 23 from U.S. Highway 53 in Orr to 6 miles east in 1979 and along U.S. Highway 53 from State Highway 73 to the north limits of Orr in 1982 did not locate any archeological sites

V. ENVIRONMENTAL EFFECTS

An environmental analysis was conducted for the proposed project, and a discussion of those impacts is presented below. As specified in Section 122 of the 1970 Rivers and Harbors Act, the categories of impacts listed in Attachment 1 were evaluated. The local sponsor has submitted a wetland fill permit application to the Federal and State regulatory agencies.

A. Socioeconomic Resources

No significant social or economic impacts would result from construction of the proposed project. Rather, reconstruction would have a positive impact on public health and safety, public facilities and services, water supply and property values in the area after the project is complete. The primary impact of the project would be beneficial in that homeowners in the affected area would have an improved water supply system to meet the demands of residential and commercial water users and for firefighting needs.

During project construction, short-term minor adverse impacts would likely occur in the following areas: increased noise levels and disruption of normal community traffic patterns caused by truck hauling. These effects would be attenuated through the appropriate placement of construction and safety signage. These effects would be short lived and terminate when construction is complete.

B. Natural Resources

1. Terrestrial – The disturbed nature of the proposed project area reduces the potential for impacts on the area's terrestrial resources. The area east of Lake Street has been disturbed with the clearing and installation of the power line corridor, but it still provides some

habitat resources. The excavation associated with the placement of the water line would result in further temporary disturbance to the area. With completion of the installation, the area should return to preconstruction conditions. The installation of the proposed project on the western side of Lake Street would result in the permanent clearing of a 150- by 30-foot area of forested land along the railroad tracks. The area would be reseeded with native grasses.

No indication or record was found of the presence of hazardous, toxic, or radiological waste (HTRW) on the proposed project site. On the basis of this information, the potential for HTRW impacts is minimal.

2. Wetland Resources – The small streambed/wetland would be temporarily disturbed during the placement of the water line across the stream at the northern end of the property. If water is flowing in the stream during construction, a temporary diversion would be constructed. Upon completion of the construction in this area, the streambed would be restored and the flow returned to the original location.

3. Aquatic Habitat Resources – Runoff from the construction site would be controlled to avoid any impacts on surface water quality.

4. Endangered Species - The proposed action would have no impact on the two protected species or their critical habitat.

C. Cultural Resources

As of May 25, 2007, no properties on the east side of Lake Street from the existing water tank north to U.S. Highway 53 or on Minnesota Department of Natural Resources property south of U.S. Highway 53 and west of Lake Street and the railroad tracks are eligible for or are listed on the National Register of Historic Places. The National Register-listed Orr Roadside Parking Area is on the west side of U.S. Highway 53 with that highway, railroad tracks, and Lake Street between it and where the proposed water main alignment crosses Hillcrest Drive; it will not be affected. The historic Orr Depot, B. Potter Café, Orr General Store, and Calvary Lutheran Church buildings are all at least one-quarter mile south of the proposed water main alignment and also will not be affected. Because the proposed water main alignment follows the alley behind the buildings on the east side of Lake Street and a previously disturbed area on the west side of Lake Street, the Corps believes that no historic properties will be affected by the proposed water main construction. Benchmark Engineering, on behalf of the city of Orr, coordinated the proposed water main alignment with the Minnesota State Historic Preservation Office (SHPO) in November-December 2003 (SHPO file 2004-0141). The Minnesota SHPO concluded at that time that no National Register eligible or listed properties would be affected by the proposed water main construction project.

D. Cumulative Impacts

A review was made of past, current, and planned development in the vicinity of the proposed project. In 2002, a separate project was carried out to repair the waste water collection service in

the currently proposed project area. Both the previous and current projects essentially maintain existing conditions and would, therefore, not add to or affect cumulative impacts to the area.

VI. ALTERNATIVES

The following alternative actions to the selected plan were evaluated.

A. Repair/Replacement in Place – The potential for repairing and replacing the line along the existing alignment was evaluated. This procedure would have limited project disturbances to the residential areas and out of the utility corridor. Because this alternative would include work under the existing residences, it would be significantly more expensive and disruptive to the homeowners. It was determined that any reduction in overall natural resource impacts by avoiding the already disturbed utility corridor could not be justified against the increased costs and social disruption that would result from using the existing alignment.

B. No Action – This alternative would not satisfy the intent of the project, which is to repair and expand the capacity of the existing water supply system. For this reason, it was not considered further.

VII. COORDINATION

The Corps of Engineers has coordinated the proposed project with the U.S. Fish and Wildlife Service (Attachment 2). Coordination with the Minnesota SHPO was accomplished in December 2003 (Attachment 3).

This assessment will be sent to the U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency, the Minnesota Pollution Control Agency, and the Minnesota Department of Natural Resources. The document will also be made available to other Federal and State agencies and the interested public for review and comment.

VIII. APPLICABLE ENVIRONMENTAL LAWS AND REGULATIONS

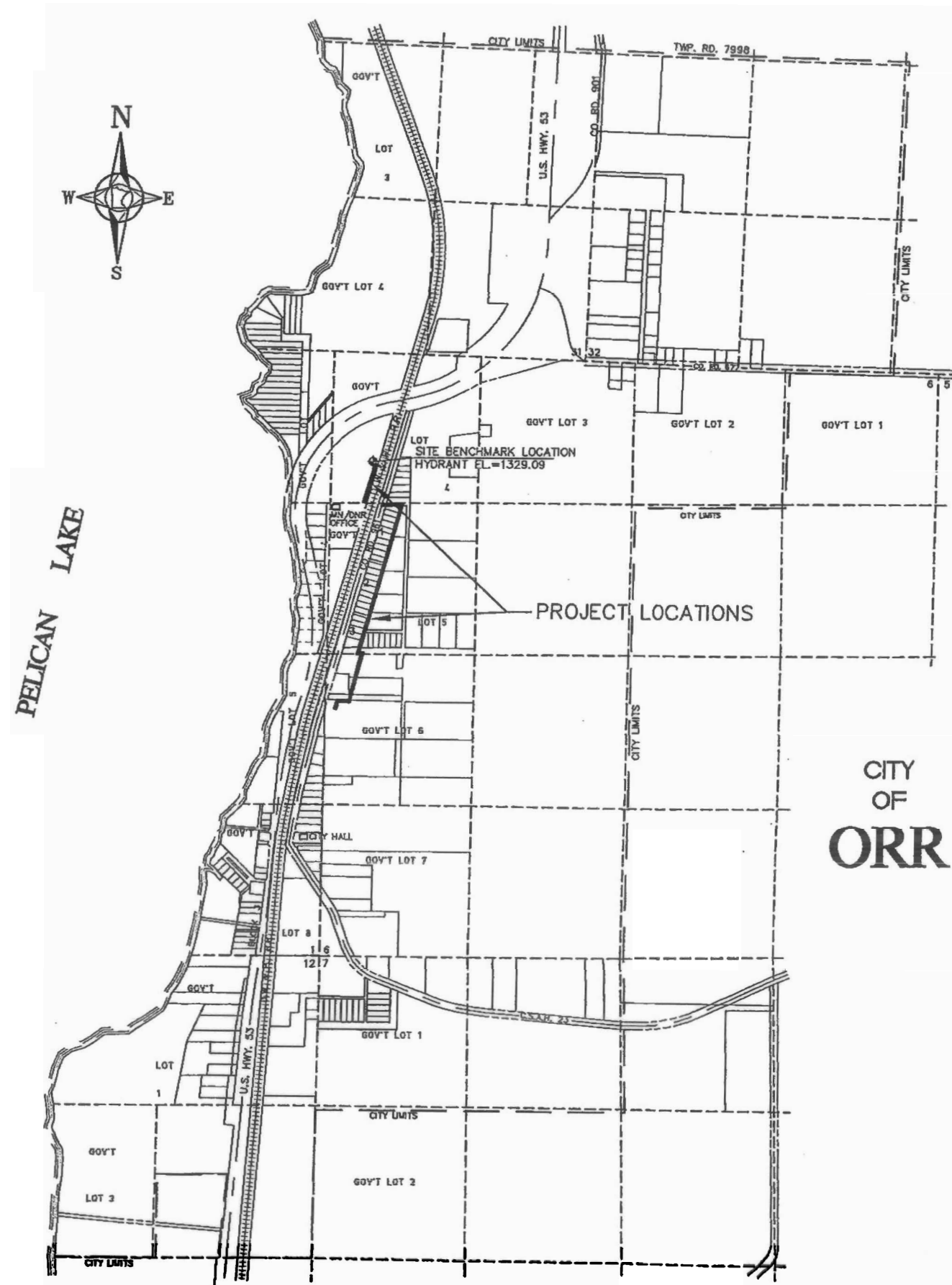
Table 1 summarizes the status of project actions proposed by the Corps of Engineers in relation to applicable environmental laws and regulations.

Table 1 - Status of Project with Applicable Laws and Statutes

STATUTES OR DIRECTIVES	COMPLIANCE STATUS
<u>Federal Statutes</u>	
Archeological and Historic Preservation Act	Full
Clean Air Act of 1977, as amended	Full
Clean Water Act of 1977, as amended	In Process
Coastal Zone Management Act	N/A
Endangered Species Act of 1973, as amended	Full
Estuary Protection Act	N/A
Federal Water Project Recreation Act, as amended	Full
Fish and Wildlife Coordination Act, as amended	Full
Land and Water Conservation Fund Act, as amended	Full
Marine Protection, Research and Sanctuaries Act, as amended	N/A
National Environmental Policy Act of 1969, as amended	Full
National Historic Preservation Act of 1966, as amended	Full
Resource Conservation and Recovery Act	N/A
Rivers and Harbors Act	Full
Watershed Protection and Flood Prevention Act, as amended	Full
Wild and Scenic Rivers Act, as amended	N/A
<u>Executive Orders, Memorandums, etc.</u>	
Floodplain Management (E.O. 11988) Full Protection of Wetlands (E.O. 11990)	Full
Environmental Effects Abroad of Major Federal Actions (E.O. 12114)	N/A
Analysis of Impacts on Prime and Unique Farmlands (CEQ Memorandum, August 11, 1980)	Full
Protection and Enhancement of Environmental Quality (E.O. 11514, as amended by E.O. 11991)	Full
Protection and Enhancement of the Cultural Environment (E.O. 11592)	Full

The proposed project would not result in the conversion of agricultural lands to nonagricultural purposes. Therefore, the provisions of the Farmland Protection Policy Act of 1981 do not apply. All applicable laws and regulations listed in Table 1 will be fully complied with prior to initiation of construction.

Plotted by: edwin \\msnserver\landproj\proj\005-2\005-2.dwg May 11, 2007 - 11:04 AM



PLAN FOR STREET WATERMAIN CONSTRUCTION CITY OF ORR, MINNESOTA PROJECT NO. OR05-2

INDEX TO PLANS	
SHEET NO.	DESCRIPTION
1	GENERAL LOCATION & INDEX TO PLANS
2	OVERALL SHEET LAYOUT
3	ESTIMATED QUANTITIES & CHARTS
4	STANDARD DETAILS & TYPICAL SECTIONS
5	TYPICAL SECTIONS & HORIZONTAL CONTROL
6-10	LAKE STREET PLAN SHEETS
11-15	LAKE STREET PROFILE SHEETS
16	DNR WATER PLAN SHEET
17	DNR WATER PROFILE SHEET
18	TRAFFIC CONTROL
19-20	SWPPP/EROSION CONTROL



SURVEY DATA
SURVEY DATA COLLECTION: NOVEMBER, 2004
HORIZONTAL DATA: ST. LOUIS COUNTY, CENTRAL
DATUM: NAD83
SITE BENCHMARK
HYDRANT EL.=1329.09

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-2, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."



**Benchmark
ENGINEERING, INC.**
CIVIL & ENVIRONMENTAL ENGINEERING
PLANNING & LAND DEVELOPMENT
8878 Main Street, Post Office Box 261
Mountain Iron, Minnesota 55768
Phone 218/735-9514
http://www.bem-inc.com

I hereby certify that this plan, specification or report was prepared by me or under my supervision and that I am a duly licensed PROFESSIONAL ENGINEER under the laws of the State of MINNESOTA.

Printed name: ERIC E. FALLSTROM Lic. No. 40351
Date: _____

DATE	REVISIONS	DESCRIPTION

LAKE STREET WATERMAIN CONSTRUCTION
CITY OF ORR, MINNESOTA

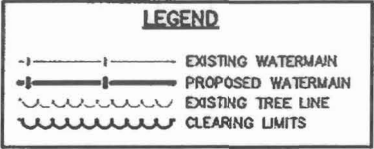
GENERAL LOCATION & INDEX TO PLANS

SHEET NO.
1 OF **20**

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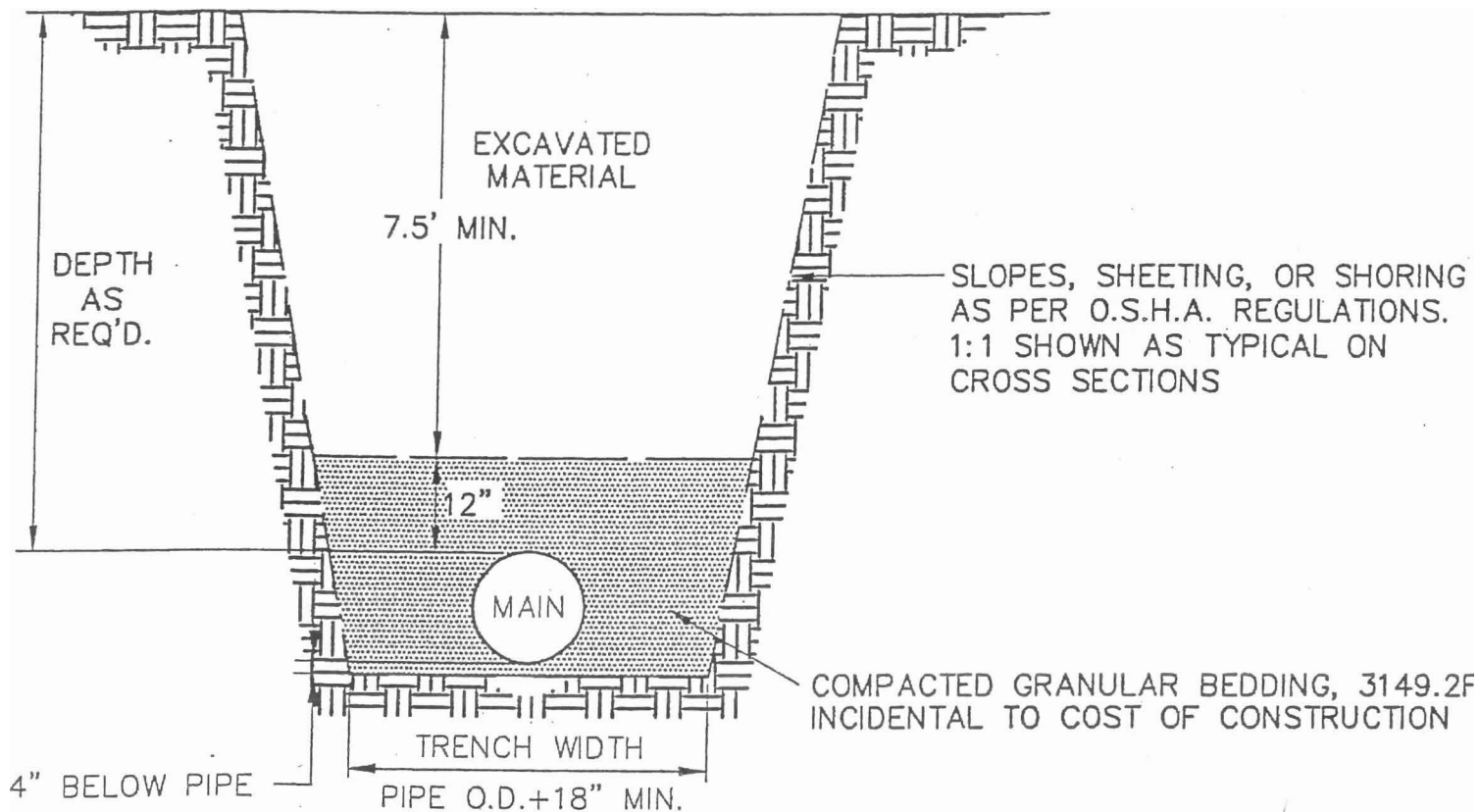
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Jun 12, 2007 - 10:07am

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SHEET NO.
1 OF **1**

Sheet 2



PIPE INSTALLATION DETAIL

CLASS B BEDDING
FOR D.I. WATERMAIN
NO SCALE

Minnesota Section 569 Project – Orr, Minnesota
ENVIRONMENTAL ASSESSMENT MATRIX
 Section 122 of the River and Harbor and Flood Control Act of 1970 (P.L. 9611)

	MAGNITUDE OF PROBABLE IMPACTS						
	BENEFICIAL EFFECT			NO APPRECIABLE EFFECT	ADVERSE EFFECT		
	SIGNIFICANT	SUBSTANTIAL	MINOR		MINOR	SUBSTANTIAL	SIGNIFICANT
1. Noise					Temp		
2. Aesthetic Values				X			
3. Recreational Opportunities					Temp		
4. Transportation			X				
5. Public Health and Safety				X			
6. Community Cohesion (Sense of Unity)				X			
7. Community Growth and Development				X			
8. Business and Home Relocation				X			
9. Existing and Potential Land Use				X			
10. Controversy				X			
1. Property Values			X				
2. Tax Revenues				X			
3. Public Facilities and Services			X				
4. Regional Growth				X			
5. Employment				X			
6. Business Activity							
7. Farmland/Food Supply				X			
8. Water Supply			X				
9. Flooding Effects				X			
10. Energy Needs and Resources				X			
1. Air Quality				X			
2. Terrestrial Habitat					X		
3. Wetlands					Temp		
4. Aquatic Habitat				X			
5. Habitat Diversity and Interspersion				X			
6. Biological Productivity				X			
7. Surface Water Quality				X			
8. Water Supply				X			
9. Groundwater				X			
10. Soils				X			
11. Threatened or Endangered Species				X			
1. Historic Architectural Values				X			
2. Pre-Historic and Historic				X			

CONVERSATION RECORD |Time: 1430 |Date: 30 May 2007

Type: Visit| Conversation| X Telephone | Incoming X Outgoing

Location:

Name of Person Contacted: Paul Burke

Organization: USFES-Twin Cities Field Office

Telephone No.: 612-725-3548

Subject: Threatened and Endangered Species Coordination

Summary: I called Mr. Burke to inform him of the project and advise him of our determination of no impact on Threatened and Endangered Species. Mr. Burke concurred with our findings.

=====

Action Required: None

Name of Documenter: Richard J. Beatty

Signature: Signed |**Date:** 5 June 2007

=====

Action Taken: NA

Signature: |**Date:**

=====



December 8, 2003

Mr. Eric Fallstrom
Benchmark Engineering
PO Box 261
Mt. Iron, MN 55768-0261

RE: 2004 Water & Sanitary Sewer Improvements
Orr, St. Louis County
SHPO Number: 2004-0141

Dear Mr. Fallstrom:

Thank you for the opportunity to review and comment on the above project. It has been reviewed pursuant to the responsibilities given the State Historic Preservation Officer by the National Historic Preservation Act of 1966 and the Procedures of the Advisory Council on Historic Preservation (36CFR800).

Based on available information, we conclude that **no historic properties eligible for or listed on the National Register of Historic Places will be affected** by this project

Please contact Dennis Gimmetstad at (651) 296-5462 if you have any questions regarding our review of this project.

Sincerely,

Britta L. Bloomberg
Deputy State Historic Preservation Officer

cc: Sherry Erickson, City of Orr
Pat Croatt, USDA - Duluth